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**BILLING CODE 4163-19-P**

**DEPARTMENT OF HEALTH AND HUMAN SERVICES**

**Centers for Disease Control and Prevention**

**[Docket Number CDC-2012-0006; NIOSH-255]**

**Draft publication: Coal Dust Explosibility Meter Evaluation and recommendations for Application**

**Authority:** 30 U.S.C. 951

**AGENCY:** National Institute for Occupational Safety and Health (NIOSH) of the Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

**ACTION:** Notice of draft publication available for public comment.

**SUMMARY:** The National Institute for Occupational Safety and Health (NIOSH) of the Centers for Disease Control and Prevention (CDC) announces the availability of the following notice of draft publication available for public comment entitled "Coal Dust Explosibility Meter Evaluation and Recommendations for Application." The document and instructions for submitting comments can be found at <http://www.regulations.gov>.

**PUBLIC COMMENT PERIOD:** Comment period ends **May 29, 2012**.

**ADDRESSESS:** Written comments, identified by CDC-2012-0006 and docket number NIOSH-255, may be submitted by any of the following methods:

- *Federal erulemaking portal:* <http://www.regulations.gov>. Follow the instructions for submitting comments.
- *Mail:* NIOSH Docket Office, Robert A. Taft Laboratories, MS-C34, 4676 Columbia Parkway, Cincinnati, OH 45226.
- *Facsimile:* (513) 533-8285.
- *E-mail:* [nioshdocket@cdc.gov](mailto:nioshdocket@cdc.gov).

All information received in response to this notice will be available for public examination and copying at the NIOSH Docket Office, 4676 Columbia Parkway, Cincinnati, Ohio 45226.

For access to the docket to read background documents or comments received, go to <http://www.regulations.gov> or <http://www.cdc.gov/niosh/docket/review/docket255/default.html>

NIOSH includes all comments received without change in the docket, including any personal information provided. All electronic comments should be formatted as Microsoft Word. All material submitted to the Agency should reference docket number NIOSH-255 and must be submitted by **May 29, 2012** to be considered by the Agency.

**BACKGROUND:** This report details the results of a cooperative study between the National Institute for Occupational Safety and Health (NIOSH) and the Mine Safety and Health Administration (MSHA) investigating the ability of the Coal Dust Explosibility Meter (CDEM) to accurately predict the explosibility of samples of coal and rock dust mixtures collected from underground coal mines in the U.S. The CDEM, which gives instantaneous results in real time, represents a new way for miners and operators to assess the relative hazard of dust accumulations in their mines and the effectiveness of their rock dusting practices. The intention of the device is to assist mine operators in complying with the (MSHA) final rule 30 CFR§75.403, requiring that the incombustible content of combined coal dust, rock dust, and other dust be at least 80% in underground areas of bituminous coal mines.

This study was completed in 2010, and involved field use of the CDEM within MSHA's 10 bituminous coal districts. As part of their routine dust compliance surveys in these districts, MSHA inspectors collected sample coal and rock dust mixtures, field testing these samples for explosibility with the CDEM. Samples were then sent to the MSHA laboratory at Mt. Hope, WV, for parallel testing, first using a drying oven to determine the surface moisture followed by traditional low temperature ashing

(LTA) method. The LTA method determines explosibility of a coal and rock dust sample in a laboratory by heating the mixture to burn off the combustible material. The results, when combined with the surface moisture, are reported as total incombustible content (TIC). If the TIC is  $\geq 80\%$ , the sample is deemed to be nonexplosible and compliant with 30 CFR§75.403.

The CDEM utilizes a different approach, using optical reflectance to determine the ratio of rock dust to coal dust in a mixture. The CDEM offers real-time measurements of the explosion propagation hazard within a coal mine entry, allowing for immediate identification and mitigation of the problem.

The conclusions of this study support the field use of the CDEM to measure the explosibility of coal and rock dust mixtures, to more effectively improve the onsite adequacy of rock dusting for explosion prevention.

**FOR FURTHER INFORMATION CONTACT:** Dr. Jeff Kohler, NIOSH, Associate Director for Mining, 626 Cochrans Mill Road, Pittsburgh, PA 15236, telephone (412) 386-5301, e-mail [jkohler@cdc.gov](mailto:jkohler@cdc.gov).

**REFERENCE:** Web address for this publication:

[http://www.cdc.gov/niosh/docket/review/docket255/pdfs/CDEM\\_IC\\_Final\\_May01.pdf](http://www.cdc.gov/niosh/docket/review/docket255/pdfs/CDEM_IC_Final_May01.pdf).

\_\_\_\_ May 9, 2012 \_\_\_\_

**John Howard,**

Date

Director, National Institute for Occupational Safety and Health,  
Centers for Disease Control and Prevention.

[FR Doc. CDC-2012-0006]

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